



**THE DATASHEET OF  
SRE6603-680M**





## Features

- Unit height of 2.9 mm
- Inductance range: 1500 to 10,000  $\mu$ H
- Rated current up to 0.12 A
- RoHS compliant\*

## Applications

- DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Laptop computers
  - Camcorders, HDTV

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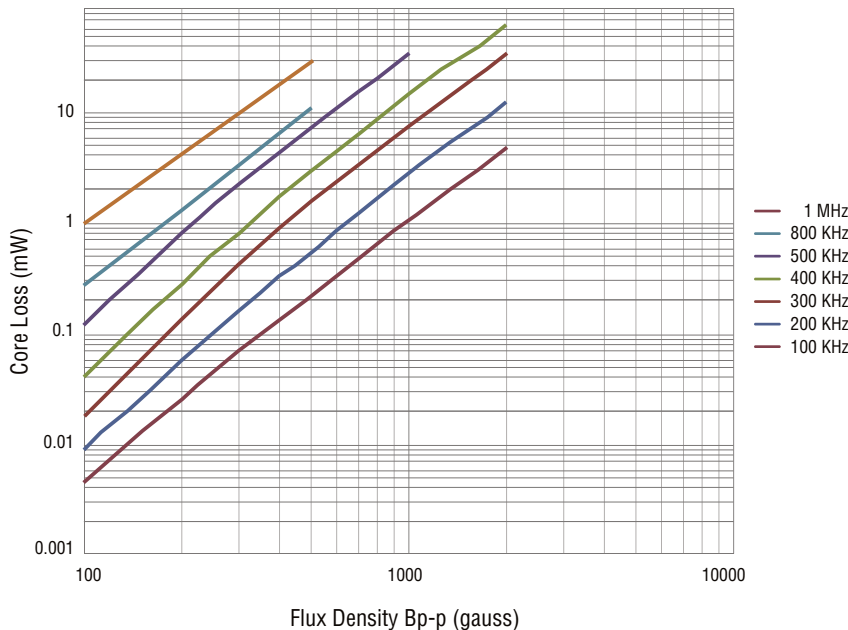
## SRE6603 Series - Shielded SMD Power Inductors

### Electrical Characteristics

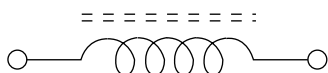
Bourns Part No.	Inductance @ 100 KHz L ( $\mu$ H) $\pm$ 20 %	Q (Ref.)	Test Freq. (KHz)	SRF (MHz) Typ.	DCR ( $\Omega$ ) Max.	I rms (A)	I sat (A)	**K -Factor
SRE6603-152M	1500	50	100	2	4.2	0.12	0.035	82
SRE6603-222M	2200	50	100	2	8.5	0.10	0.028	68
SRE6603-332M	3300	50	100	1	11	0.08	0.024	53
SRE6603-472M	4700	50	100	1	13.9	0.06	0.021	48
SRE6603-682M	6800	50	100	1	25	0.04	0.019	37
SRE6603-103M	10,000	50	100	0.8	32.8	0.02	0.017	31

\*\*K-Factor: To calculate core flux density,  $B_p$ -p (gauss) =  $K \times L(\mu H) \times \Delta I$  (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

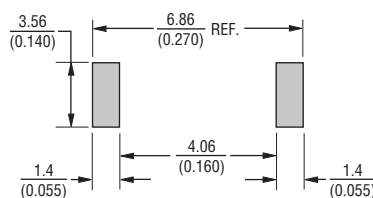
### Core Loss vs. Flux Density



### Schematic



### Recommended Layout



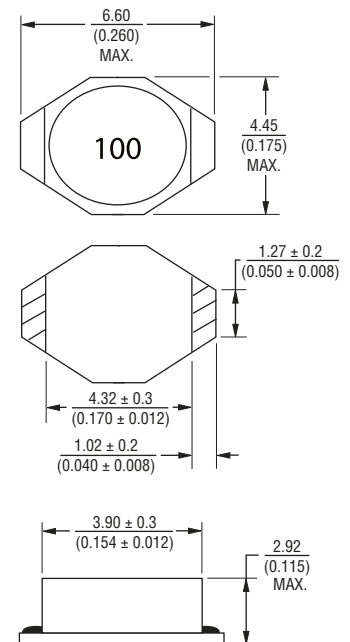
### General Specifications

Test Voltage ..... 0.1 V  
 Reflow Soldering ... 230 °C, 50 sec max.  
 Operating Temperature ..... -25 °C to +105 °C  
 (Temperature rise included)  
 Storage Temperature ..... -40 °C to +125 °C  
 Resistance to Soldering Heat ..... 260 °C for 10 sec.  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

### Materials

Core ..... Ferrite  
 Wire ..... Enamelled copper  
 Base ..... Ceramic  
 Adhesive ..... Epoxy resin  
 Terminal ..... Ag/Ni/Au  
 Rated Current ..... Ind. drop of 30 % typ. at Isat  
 Temperature Rise ... 40 °C typical at Irms  
 Packaging ..... 2000 pcs. per 13-inch reel

### Product Dimensions



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



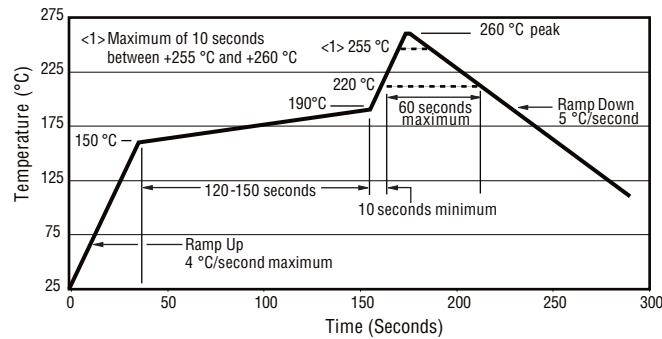
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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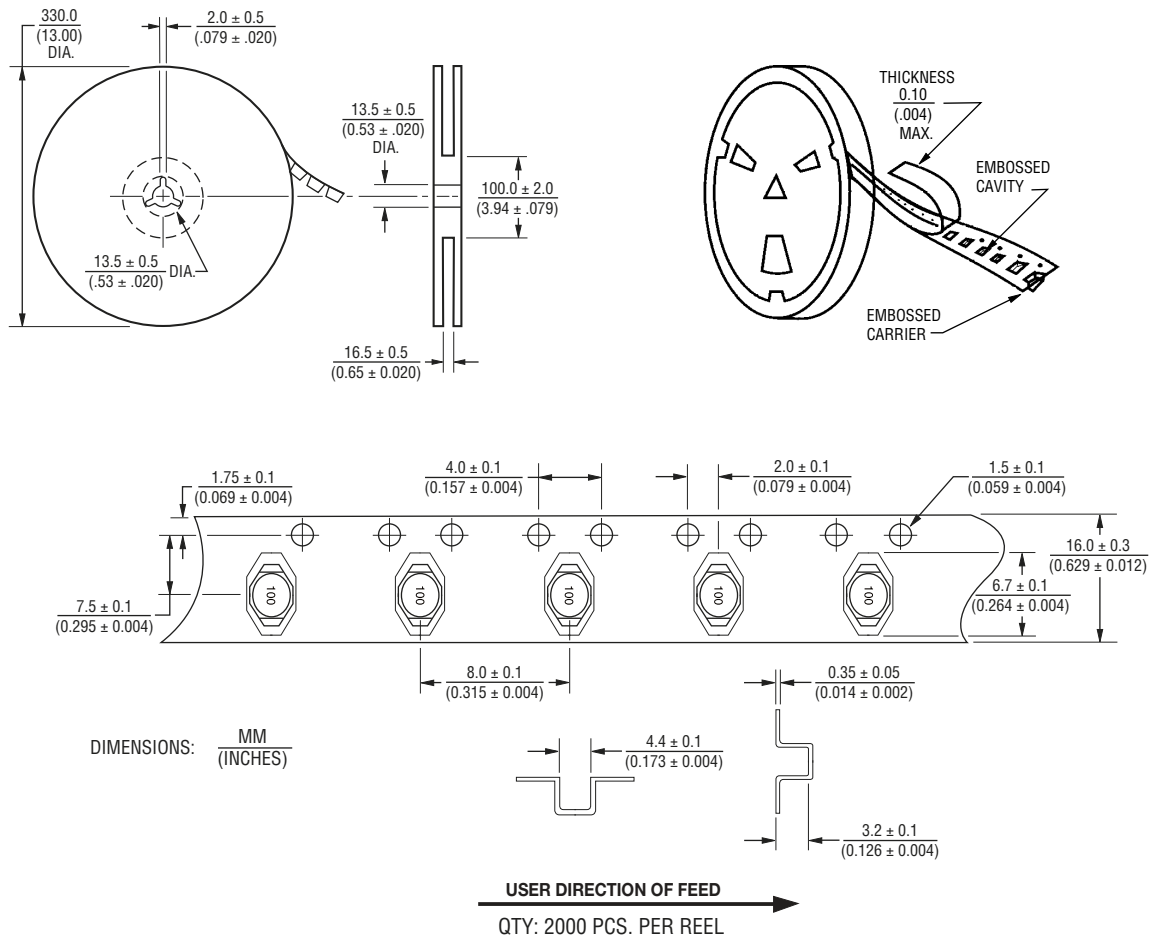
# SRE6603 Series - Shielded SMD Power Inductors

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## Soldering Profile



## Packaging Specifications



REV. 03/18

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management